

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

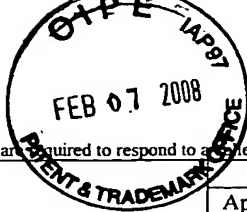
*(use as many sheets as necessary)*

Application Number	10/559,929
Filing Date	May 2, 2006
First Named Inventor	Peter LONAI Z"LI
Art Unit	1632
Examiner Name	Not Yet available
Attorney Docket Number	30800

Sheet	1	of	6
-------	---	----	---

[illegible][illegible]Date  
Considered

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14, this collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO				Complete if Known	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				Application Number	10/559,929
				Filing Date	May 2, 2006
				First Named Inventor	Peter LONAI Z"L
				Group Art Unit	1632
				Examiner Name	Not Yet available
Sheet	2	Of	6	Attorney Docket Number	30800
<b>OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS</b>					
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.			T <sup>2</sup>
	5	Adra et al. "Cloning and Expression of the Mouse PGK-1 Gene and the Nucleotide Sequence of Its Promoter", Gene, 60: 65-74, 1987.			
	6	Amit et al. "Clonally Derived Human Embryonic Stem Cell Lines Maintain Pluripotency and Proliferative Potential for Prolonged Periods of Culture", Developmental Biology, 227: 271-278, 2000.			
	7	Ballas et al. "Adult Bone Marrow Stem Cells for Cell and Gene Therapies: Implications for Greater Use", Journal of Cellular Biochemistry Supplement, 38: 20-28, 2002.			
	8	Belting "Heparan Sulfate Proteoglycan as A Plasma Membrane Carrier", Trends in Biochemical Sciences, TiBS, 28(3): 145-151, 2003.			
	9	Björklund et al. "Cell Replacement Therapies fro Central Nervous System Disorders", Nature Neuroscience, 3(6): 537-544, 2000.			
	10	Bongso et al. "Improved Quality of Human Embryos When Co-Cultured With Human Ampullary Cells", Human Reproduction, 4(6): 706-713, 1989.			
	11	Brisson et al. "Expression of A Bacterial Gene in Plants by Using A Viral Vector", Nature, 310: 511-514, 1984.			
	12	Brogie et al. "Light-Regulated Expression of A Pea Ribulose-1,5-Bisphosphate Carboxylase Small Subunit Gene in Transformed Plant Cells", 224: 838-843, 1984.			
	13	Chen et al. "Fibroblast Growth Factor (FGF) Signaling Through PI 3-Kinase and Akt/PKB Is Required for Embryoid Body Differentiation", Oncogene, 19: 3750-3756, 2000.			
	14	Coruzzi et al. "Tissue-Specific and Light-Regulated Expression of Pea Nuclear Gene Encoding the Small Subunit of Ribulose-1,5-Bisphosphate Carboxylase", The EMBO Journal, 3(8): 1671-1679, 1984.			
	15	Coucouvanis et al. Signals for Death and Survival: A Two-Step Mechanism for Cavitation in the Vertebrate Embryo", Cell, 83: 279-287, 1995.			
	16	Doetschman et al. "Establishment of Hamster Blastocyst-Derived Embryonic Stem (ES) Cells", Developmental Biology, 127: 224-227, 1988.			
	17	Ekblom et al. "Expression and Biological Role of Laminin-1", Matrix Biology, 22: 35-47, 2003.			
	18	Farrell et al. "Secretion of Cytoplasmic and Nuclear Proteins From Animal Cells Using Novel Secretion Modules", Proteins: Structure, Function, and Genetics, 41: 144-153, 2000.			
Examiner Signature				Date Considered	

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional).

<sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).

<sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).

<sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

<sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible.

<sup>6</sup> Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. this collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	10/559,929
				Filing Date	May 2, 2006
				First Named Inventor	Peter LONAI Z"L
				Art Unit	1632
				Examiner Name	Not Yet available
Sheet	3	Of	6	Attorney Docket Number	30800
<b>OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.			T <sup>2</sup>
	19	Felgner "Particulate Systems and Polymers for In Vitro and In Vivo Delivery of Polynucleotides", Advanced Drug Delivery Reviews, 5: 163-187, 1990.			
	20	Felgner et al. "Cationic Liposome-Mediated Transfection", Nature, 337: 387-388, 1989.			
	21	Felgner et al. "Lipofection: A Highly Efficient, Lipid-Mediated DNA-Transfection Procedure", Proc. Natl. Acad. Sci. USA, 84: 7413-7417, 1987.			
	22	Fujikura et al. "Differentiation of Embryonic Stem Cells Is Induced by GATA Factors", Genes & Development, 16: 784-789, 2002.			
	23	Gardner et al. "Culture and Transfer of Human Blastocysts Increases Implantation Rates and Reduces the Need for Multiple Embryo Transfers", Fertility and Sterility, 69(1): 84-88, 1998.			
	24	Giles et al. "Pluripotency of Cultured Rabbit Inner Cell Mass Cells Detected by Isozyme Analysis and Eye Pigmentation of Fetuses Following Injection Into Blastocysts of Morulae", Molecular Reproduction and Development, 36: 130-138, 1993.			
	25	Graves et al. "Derivation and Characterization of Putative Pluripotent Embryonic Stem Cells From Preimplantation Rabbit Embryos", Molecular Reproduction and Development, 36: 424-433, 1993.			
	26	Gurley et al. "Upstream Sequences Required for Efficient Expression of A Soybean Heat Shock Gene", Molecular and Cellular Biology, 6(2): 559-565, 1986.			
	27	Horikawa et al. "Cloning and Characterization of the Promoter Region of Human Telomerase", Cancer Research, 59: 826-830, 1999.			
	28	Hutvagner et al. "RNAi: Nature Abhors A Double-Strand", Current Opinion in Genetics & Development, 12: 225-232, 2002.			
	29	Iannaccone et al. "Pluripotent Embryonic Stem Cells From the Rat Are Capable of Producing Chimeras", Developmental Biology, 163: 288-292, 1994.			
	30	Kim et al. "Preparation of Multivesicular Liposomes", Biochimica et Biophysica Acta, 728: 339-348, 1983.			
	31	Koutsourakis et al. "The Transcription Factor GATA6 Is Essential for Early Extraembryonic Development", Development, 126: 723-732, 1999.			
	32	Lee et al. "Recognition of Liposomes by Cells: In Vitro Binding and Endocytosis Mediated by Specific Lipid Headgroups and Surface Charge Density", Biochimica et Biophysica Acta, 1103: 185-197, 1992.			
Examiner Signature				Date Considered	

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional).

<sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).

<sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).

<sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

<sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible.

<sup>6</sup> Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. this collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	10/559,929
				Filing Date	May 2, 2006
				First Named Inventor	Peter LONAI Z"L
				Art Unit	1632
				Examiner Name	Not Yet available
Sheet	4	Of	6	Attorney Docket Number	30800
<b>OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.			T <sup>2</sup>
	33	Li et al. "Fibroblast Growth Factor Signaling and Basement Membrane Assembly Are Connected During Epithelial Morphogenesis of the Embryoid Body", The Journal of Cell Biology, 153(4): 811-822, 2001.			
	34	Liu et al. "Role of Liposome Size and RES Blockade in Controlling Biodistribution and Tumor Uptake of GM1-Containing Liposomes", Biochimica et Biophysica Acta, 1104: 95-101, 1992.			
	35	Lo et al. "High Level Expression and Secretion of Fc-X Fusion Proteins in Mammalian Cells", Protein Engineering, 11(6): 495-500, 1998.			
	36	Lodie et al. "Systematic Analysis of Reportedly Distinct Populations of Multipotent Bone Marrow-Derived Stem Cells Reveals A Lack of Distinction", Tissue Engineering, 8(5): 739-751, 2002.			
	37	Martin et al. "The Development of Cystic Embryoid Bodies In Vitro From Clonal Teratocarcinoma Stem Cells", Developmental Biology, 61: 230-244, 1977.			
	38	Mitalipova et al. "Pluripotency of Bovine Embryonic Cell Line Derived From Precompacting Embryos", Cloning, 3(2): 59-67, 2001.			
	39	Mizushima et al. "PEF-BOS, A Powerful Mammalian Expression Vector", Nucleic Acids Research, 18(17): 5322, 1990.			
	40	Molkentin "The Zinc Finger-Containing Transcription Factors GATA-4, -5, and -6", The Journal of Biological Chemistry, 275(50): 38949-38952, 2000.			
	41	Morrisey et al. "GATA-4 Activates Transcription Via Two Novel Domains That Are Conserved Within the GATA-4/5/6 Subfamily", The Journal of Biological Chemistry, 272(13): 8515-8524, 1997.			
	42	Morrisey et al. "GATA6 Regulates HNF4 and Is Required for Differentiation of Visceral Endoderm in the Mouse Embryo", Genes & Development, 12: 3579-3590, 1998.			
	43	Namiki et al. "Intracellular Delivery of Glutathione S-Transferase Into Mammalian Cells", Biochemical and Biophysical Research Communications, 305: 592-597, 2003.			
	44	Notarianni et al. "Derivation of Pluripotent, Embryonic Cell Lines From the Pig and Sheep", Journals of Reproduction & Fertility, Supplement 43: 255-260, 1991.			
	45	O'Brien et al. "Rac1 Orientates Epithelial Apical Polarity Through Effects on Basolateral Laminin Assembly", Nature Cell Biology, Nature Cell Biology, 3: 831-838, 2001.			
Examiner Signature				Date Considered	

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional).

<sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).

<sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).

<sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

<sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible.

<sup>6</sup> Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. this collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	10/559,929
				Filing Date	May 2, 2006
				First Named Inventor	Peter LONAI Z"L
				Art Unit	1632
				Examiner Name	Not Yet available
Sheet	5	Of	6	Attorney Docket Number	30800
<b>OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.			T <sup>2</sup>
	46	Okabe et al. "Development of Neuronal Precursor Cells and Functional Postmitotic Neurons From Embryonic Stem Cells In Vitro", Mechanisms of Development, 59: 89-102, 1996.			
	47	Passier et al. "Origin and Use of Embryonic and Adult Stem Cells in Differentiation and Tissue Repair", Cardiovascular Research, 58: 324-335, 2003.			
	48	Reubinoff et al. "Neural Progenitors From Human Embryonic Stem Cells", Nature Biotechnology, 19: 1134-1140, 2001.			
	49	Rizzino et al. "Growth and Differentiation of Embryonal Carcinoma Cell Line F9 in Defined Media", Proc. Natl. Acad. Sci. USA, 77(1): 457-461, 1980.			
	50	Simpson et al. "Genetic Variation Among 129 Substrains and Its Importance for Targeted Mutagenesis in Mice", Nature Genetics, 16: 19-27, 1997.			
	51	Studier et al. "Use of T7 RNA Polymerase to Direct Expression of Cloned Genes", Methods in Enzymology, 185(Chap.6): 60-89, 1990.			
	52	Takamatsu et al. "Expression of Bacterial Chloramphenicol Acetyltransferase Gene in Tobacco Plants Mediated by TMV-RNA", The EMBO Journal, 6(2): 307-311, 1987.			
	53	Taylor et al. "Delivery of Bioactive, Gel-Isolated Proteins Into Live Cells", Electrophoresis, 24: 1331-1337, 2003.			
	54	Terskikh et al. "'Fluorescent Timer': Protein That Changes Color With Time", Science, 290: 1585-1588, 2000.			
	55	Thomson et al. "Embryonic Stem Cell Lines Derived From Human Blastocysts", Science, 282: 1145-1147, 1998.			
	56	Thomson et al. "Isolation of A Primate Embryonic Stem Cell Line", Proc. Natl. Acad. Sci. USA, 92: 7844-7848, 1995.			
	57	Thomson et al. "Pluripotent Cell Lines Derived From Common Marmoset (Callithrix Jacchus) Blastocysts", Biology of Reproduction, 55: 254-259, 1996.			
	58	Thomson et al. "Primate Embryonic Stem Cells", Current Topics in Developmental Biology, 138: 133-165, 1998.			
	59	Wang et al. "Highly Efficient DNA Delivery Mediated by PH-Sensitive Immunoliposomes", Biochemistry, 28: 9508-9514, 1989.			
	60	Wheeler "Development and Validation of Swine Embryonic Stem Cells: A Review", Reproduction Fertility and Development, 6: 563-568, 1994.			
Examiner Signature				Date Considered	

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional).

<sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).

<sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).

<sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

<sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible.

<sup>6</sup> Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

Application Number	10/559,929
Filing Date	May 2, 2006
First Named Inventor	Peter LONAI Z"L
Art Unit	1632
Examiner Name	Not Yet available
Attorney Docket Number	30800

Sheet	6	Of	6	Attorney Docket Number	30800
-------	---	----	---	------------------------	-------

[illegible]

Date	
Considered	

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14, this collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*